

SEQUENCE LISTING

<110> Pharmacia Corporation
Griggs, David W
Head, Richard D
Mazzarella, Richard A
Weinstein, Edward J

<120> ESM-1 GENE DIFFERENTIALLY EXPRESSED IN ANGIOGENESIS, ANTAGONISTS
THEREOF, AND METHODS OF USING THE SAME

<130> 01189/2

<150> 60/392,784

<151> 2002-07-01

<160> 19

<170> PatentIn version 3.2

<210> 1

<211> 555

<212> DNA

<213> Homo sapiens

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agcaataatt atgcggtgga ctgccctcaa cactgtgaca gcagtgagtg caaaagcagc 120

ccgcgctgca agaggacagt gctcgacgac tgtggctgct gccgagtgtg cgctgcaggg 180

cggggagaaa cttgctaccg cacagtctca ggcatggatg gcatgaagtg tggcccgggg 240

ctgaggtgtc agccttctaa tggggaggat ccttttggtg aagagtttgg tatctgcaaa 300

gactgtccct acggcacctt cgggatggat tgcagagaga cctgcaactg ccagtcaggc 360

atctgtgaca gggggacggg aaaatgcctg aaattcccct tcttccaata ttcagtaacc 420

aagtcttcca acagatttgt ttctctcacg gagcatgaca tggcatctgg agatggcaat 480

attgtgagag aagaagttgt gaaagagaat gctgccgggt ctcccgtaat gaggaaatgg 540

ttaaattccac gctga 555

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<211> 184

<212> PRT

<213> Homo sapiens

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Met Lys Ser Val Leu Leu Leu Thr Thr Leu Leu Val Pro Ala His Leu
1 5 10 15

Val Ala Ala Trp Ser Asn Asn Tyr Ala Val Asp Cys Pro Gln His Cys
20 25 30

Asp Ser Ser Glu Cys Lys Ser Ser Pro Arg Cys Lys Arg Thr Val Leu
 35 40 45

Asp Asp Cys Gly Cys Cys Arg Val Cys Ala Ala Gly Arg Gly Glu Thr
 50 55 60

Cys Tyr Arg Thr Val Ser Gly Met Asp Gly Met Lys Cys Gly Pro Gly
 65 70 75 80

Leu Arg Cys Gln Pro Ser Asn Gly Glu Asp Pro Phe Gly Glu Glu Phe
 85 90 95

Gly Ile Cys Lys Asp Cys Pro Tyr Gly Thr Phe Gly Met Asp Cys Arg
 100 105 110

Glu Thr Cys Asn Cys Gln Ser Gly Ile Cys Asp Arg Gly Thr Gly Lys
 115 120 125

Cys Leu Lys Phe Pro Phe Phe Gln Tyr Ser Val Thr Lys Ser Ser Asn
 130 135 140

Arg Phe Val Ser Leu Thr Glu His Asp Met Ala Ser Gly Asp Gly Asn
 145 150 155 160

Ile Val Arg Glu Glu Val Val Lys Glu Asn Ala Ala Gly Ser Pro Val
 165 170 175

Met Arg Lys Trp Leu Asn Pro Arg
 180

<210> 3
 <211> 65
 <212> PRT
 <213> Homo sapiens

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Val Asp Cys Pro Gln His Cys Asp Ser Ser Glu Cys Lys Ser Ser Pro
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Arg Cys Lys Arg Thr Val Leu Asp Asp Cys Gly Cys Cys Arg Val Cys
 20 25 30

Ala Ala Gly Arg Gly Glu Thr Cys Tyr Arg Thr Val Ser Gly Met Asp
 35 40 45

Gly Met Lys Cys Gly Pro Gly Leu Arg Cys Gln Pro Ser Asn Gly Glu

50 55 60

Asp
65

<210> 4
<211> 63
<212> PRT
<213> Homo sapiens

<400> 4

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Gly Cys Ala Glu Leu Val Val Leu Asp Gly Cys Gly Gly Cys Cys Pro
20 25 30

Val Cys Ala Arg Gln Glu Gly Glu Pro Cys Gly Val Tyr Thr Pro Pro
35 40 45

Cys Ala Pro Gly Gly Leu Arg Cys Asp Pro Pro Pro Gly Glu Glu
50 55 60

<210> 5
<211> 184
<212> PRT
<213> Rattus sp.

<400> 5

Met Lys Ser Leu Leu Leu Val Thr Thr Leu Leu Ile Pro Leu His Leu
1 5 10 15

Gly Met Ala Trp Ser Ala Lys Tyr Ala Val Asp Cys Pro Glu His Cys
20 25 30

Asp Asn Thr Glu Cys Arg Ser Ser Leu Arg Cys Lys Arg Thr Val Leu
35 40 45

Asp Asp Cys Gly Cys Cys Gln Val Cys Ala Ala Gly Pro Gly Glu Thr
50 55 60

Cys Tyr Arg Thr Val Ser Gly Met Asp Gly Val Lys Cys Gly Pro Gly
65 70 75 80

Leu Lys Cys His Phe Tyr Ser Glu Glu Asp Asp Phe Gly Asp Glu Phe
85 90 95

Gly Val Cys Lys Asp Cys Pro Tyr Gly Thr Phe Gly Met Asp Cys Lys
100 105 110

Glu Thr Cys Asn Cys Gln Ser Gly Ile Cys Asp Arg Val Thr Gly Arg
115 120 125

Cys Leu Asp Phe Pro Phe Phe Gln Tyr Ala Ala Ala Lys Ser Pro Ser
130 135 140

Arg Thr Ser Ala Ser Gln Thr Glu Arg Asp Ala Ala Ser Gly Asp Gly
145 150 155 160

Asn Ala Val Arg Glu Glu Ile Gly Asp Arg Asn Ala Ala Arg Pro Ser
165 170 175

Val Met Lys Trp Leu Asn Pro Arg
180

<210> 6
<211> 184
<212> PRT
<213> Mus musculus

<400> 6

Met Lys Ser Leu Leu Leu Leu Thr Thr Leu Leu Val Pro Leu His Leu
1 5 10 15

Gly Met Ala Trp Ser Ala Lys Tyr Ala Val Asp Cys Pro Glu His Cys
20 25 30

Asp Lys Thr Glu Cys Arg Ser Ser Leu Arg Cys Lys Arg Thr Val Leu
35 40 45

Asp Asp Cys Gly Cys Cys Gln Val Cys Ala Ala Gly Pro Gly Glu Thr
50 55 60

Cys Tyr Arg Thr Val Ser Gly Met Asp Gly Val Lys Cys Gly Pro Gly
65 70 75 80

Leu Lys Cys His Phe Tyr Ser Glu Glu Asp Asp Phe Gly Asp Glu Phe
85 90 95

Gly Ile Cys Lys Asp Cys Pro Tyr Gly Thr Phe Gly Met Glu Cys Lys
100 105 110

Glu Thr Cys Asn Cys Gln Ser Gly Ile Cys Asp Arg Val Thr Gly Arg
115 120 125

Cys Leu Asp Phe Pro Phe Phe Gln Tyr Ala Ala Ala Lys Ser Pro Ser
 130 135 140

Arg Thr Ser Ala Ser His Thr Glu Arg Asp Ser Ala Ser Gly Asp Gly
 145 150 155 160

Asn Ala Val Arg Glu Glu Ile Gly Glu Gly Asn Ala Ala Arg Pro Ser
 165 170 175

Val Met Lys Trp Leu Asn Pro Arg
 180

<210> 7
 <211> 21
 <212> DNA
 <213> Artificial

<220>
 <223> human ESM-1 PCR forward primer

<400> 7
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<210> 8
 <211> 18
 <212> DNA
 <213> artificial

<220>
 <223> human ESM-1 PCR forward primer

<400> 8
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18

<210> 9
 <211> 15
 <212> DNA
 <213> Artificial

<220>
 <223> human ESM-1 PCR reverse primer

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 gcgtggattt aacca

15

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 <211> 23
 <212> DNA
 <213> artificial

<220>
 <223> mouse ESM-1 probe

<400> 10
atctgcaaag actgtcccta tgg 23

<210> 11
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<212> DNA
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<220>
<223> Mouse PCR probe

<400> 11
tgcccgactg gcaattg 17

<210> 12
<211> 28
<212> DNA
<213> Artificial

<220>
<223> MOUSE PROBE

<400> 12
aagtctcttt gcattccatc ccgaagg 28

<210> 13
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<220>
<223> HUMAN PROBE

<400> 13
gtggactgcc ctcaacactg t 21

<210> 14
<211> 20
<212> DNA
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<220>
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<400> 14
tcgagcactg tcctcttgca 20

<210> 15
<211> 23
<212> DNA
<213> Artificial

<220>
<223> HUMAN PROBE

<400> 15
cagtgagtgc aaaagcagcc cgc 23

<210> 16
<211> 40
<212> DNA
<213> Artificial

<220>
<223> IN SITU PROBE

<400> 16
ccatccatgc ctgagactgt gcggtagcaa gtttctcccc 40

<210> 17
<211> 40
<212> DNA
<213> Artificial

<220>
<223> INSITU PROBE

<400> 17
gccatctcca gatgccatgt catgctccgt gagagaaaca 40

<210> 18
<211> 40
<212> DNA
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<220>
<223> INSITU PROBE

<400> 18
caccaaaagg atcctcccca ttagaaggct gacacctcag 40

<210> 19
<211> 165
<212> PRT
<213> Homo sapiens

<400> 19

Trp Ser Asn Asn Tyr Ala Val Asp Cys Pro Gln His Cys Asp Ser Ser
1 5 10 15

Glu Cys Lys Ser Ser Pro Arg Cys Lys Arg Thr Val Leu Asp Asp Cys
20 25 30

Gly Cys Cys Arg Val Cys Ala Ala Gly Arg Gly Glu Thr Cys Tyr Arg
35 40 45

Thr Val Ser Gly Met Asp Gly Met Lys Cys Gly Pro Gly Leu Arg Cys
50 55 60

Gln Pro Ser Asn Gly Glu Asp Pro Phe Gly Glu Glu Phe Gly Ile Cys
65 70 75 80

Lys Asp Cys Pro Tyr Gly Thr Phe Gly Met Asp Cys Arg Glu Thr Cys
85 90 95

Asn Cys Gln Ser Gly Ile Cys Asp Arg Gly Thr Gly Lys Cys Leu Lys
100 105 110

Phe Pro Phe Phe Gln Tyr Ser Val Thr Lys Ser Ser Asn Arg Phe Val
115 120 125

Ser Leu Thr Glu His Asp Met Ala Ser Gly Asp Gly Asn Ile Val Arg
130 135 140

Glu Glu Val Val Lys Glu Asn Ala Ala Gly Ser Pro Val Met Arg Lys
145 150 155 160

Trp Leu Asn Pro Arg
165